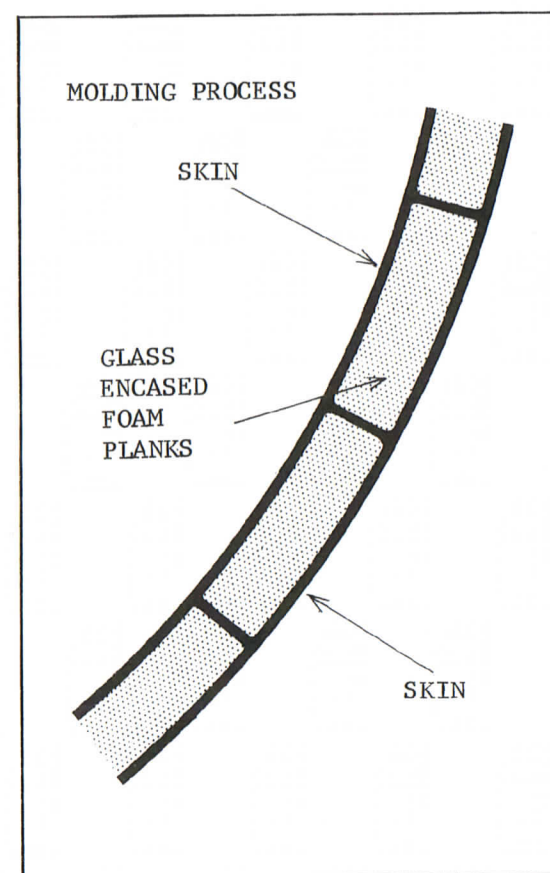
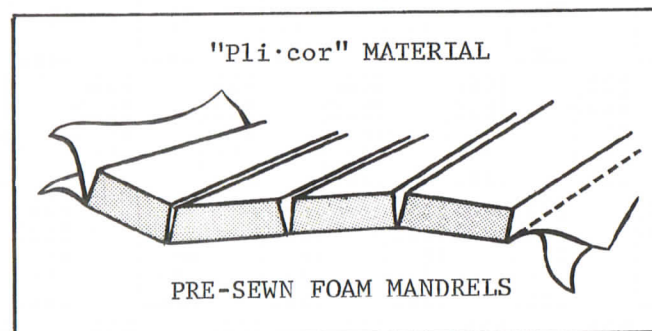


PLI·COR

"The most significant advance in fiberglass boat construction and performance ever achieved"

Ordinary fiberglass methods did not meet Tollycraft standards for construction excellence until the Space Age developed Pli·cor. This amazing new process used by the aircraft industry encases a core material of rigid foam planks, stitched together in a quilt of glass cloth, and laminated between two surface layers of fiberglass and resin. Vacuum-molded and heat cured to increase strength and eliminate the familiar resin odor, Pli·cor

produces hulls that are stronger, lighter weight, more buoyant, with greater shock and sound absorbent qualities. Tollycraft features the successful modified deep V design and the famous Conolift hull, aided by longitudinal planning stabilizers for directional stability and lift. You get a quieter, more economical ride with maintenance-free all-fiberglass Tollycraft. The double-wall system, connected by an "I" beam spacer results in added strength and rigidity.



the Pli-cor Story

1968 Models



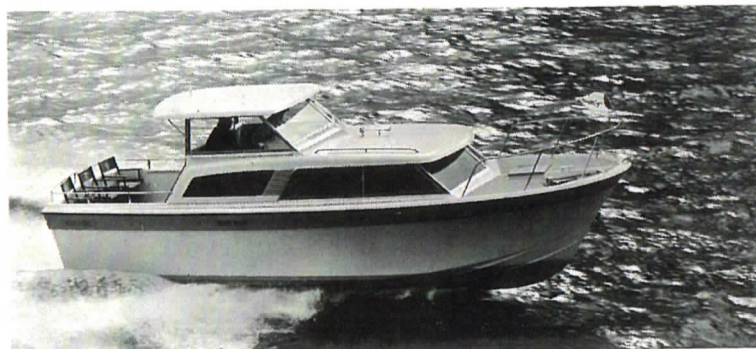
17'



20'



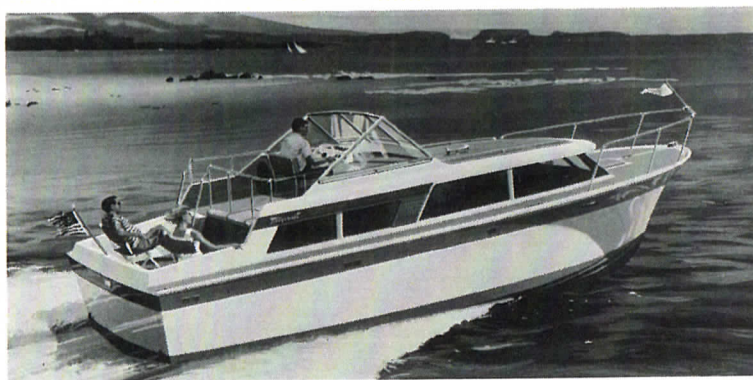
23'



28' Cruiser



28' Sport Fisher



30'

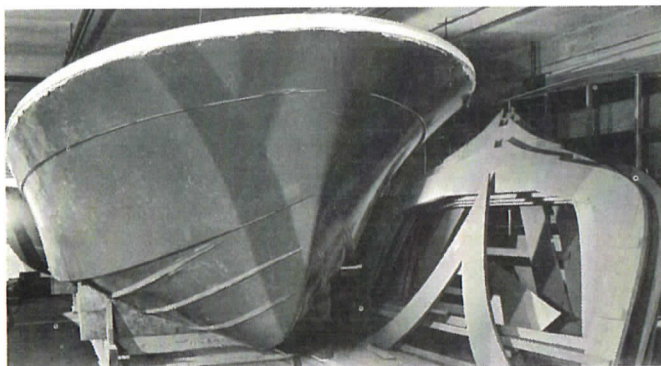


34'

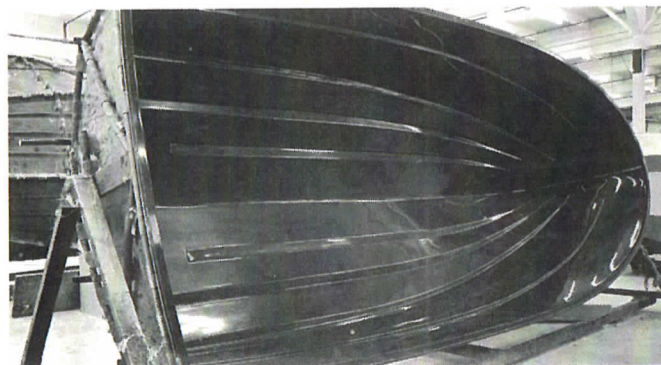
the Pli-cor Story

AMAZING NEW PLI-COR

Tollycraft's Pli-cor is a totally new concept in fiberglass pleasure boat construction. The technique, which originated with the space-age aircraft industry, differs dramatically from the conventional single-skin fiberglass boat construction.



Wooden Plug



Hull Mold

STEP ONE

Tollycraft's Pli-cor process begins with a wooden model, or "plug", painstakingly created by hand from the blueprint. This plug is an exact replica down to the finest detail of the hull to be produced. Extreme care is taken to achieve a perfect model.

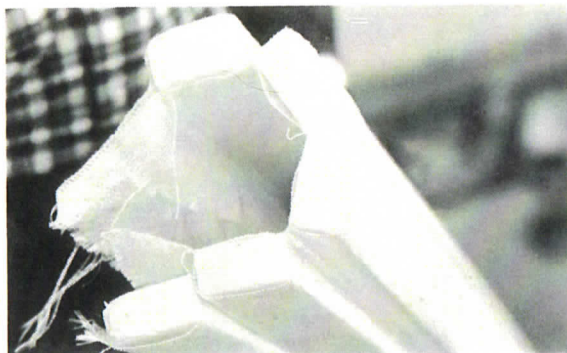
STEP TWO

From the plug is cast the fiberglass mold. Continual care is necessary to maintain this mold in perfect condition. For the exterior finish of a hull, a cavity (female) mold is used; for the interior, a protruding (male) mold.

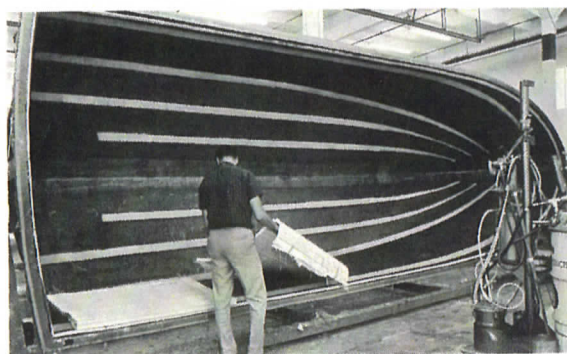
The construction process begins by spraying the casting surface of the mold with Gelcoat in the color desired. The Gelcoat is a resin containing color pigment baked for stability and produces a life-long color in the hull. An additional coat of Gelcoat is sprayed to assure an unblemished, color-perfect finish.

A crew of skilled craftsmen now begin the "skinout", a procedure that varies little from conventional single-skin fiberglass construction. A two-ounce mat and nine-ounce cloth are placed over the entire surface of the mold. The mat is composed of chopped strands of fiberglass combined with a "binder" which dissolves, leaving pure strand glass. Several more layers of heavier fiberglass woven roving are then added to build up the outer shell to the desired thickness. A foam-filler is inserted in the longitudinal planing stabilizer areas and covered with another layer of woven roving.

the Pli-cor Story



Pre-sewn foam mandrels



Inserting Mandrels into hull



Hull in vacuum process

STEP THREE

The Pli-cor process now departs dramatically from ordinary fiberglass boat construction. Polyurethane foam mandrels encased in fiberglass cloth are cut to specified size and presprayed with resin to insure adequate saturation. These rigid, compressed foam "planks" possess exceptional acoustical and heat insulating qualities which greatly minimize interior hull condensation.

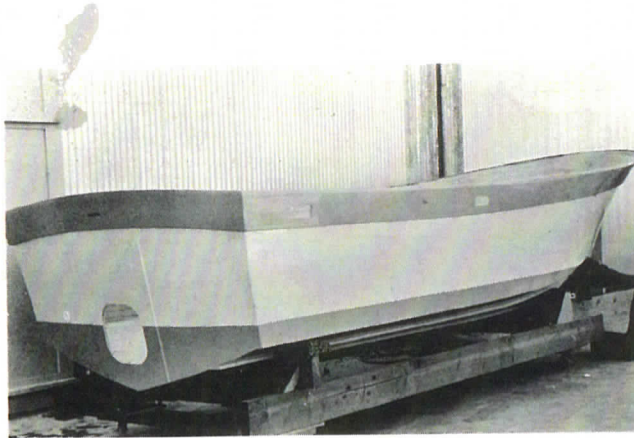
STEP FOUR

The foam mandrel sections are carefully inserted in the hull in a skilled hand operation. Once this pre-saturated core is in place in the hull cavity, two additional layers of 18-ounce woven glass roving are added to form a Pli-cor "sandwich". It is this strong sandwich structure that produces a lighter hull, that delivers more speed (combined with Conolift design) at equal or less power compared with planked or ordinary fiberglass boats.

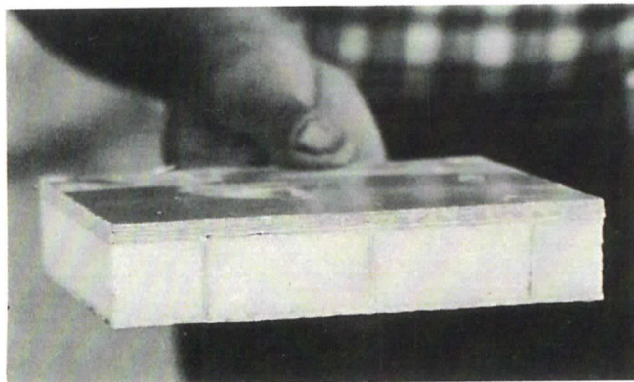
STEP FIVE

Before the lamination process begins, a felt pad is run about the gunwale, through the chine lines, down the keel section, up the transom and out, connecting all felt bleeder strips together. A nylon bag is now laid into place around keel, chines and transom area. Chromate tape is used to seal the hull completely. Vacuum hoses are attached to draw all the air from the nylon bag. Vacuum pressure is scientifically measured and controlled to produce an even thirteen pounds pressure per square inch over the entire hull.

The hull is placed in a heat room for half an hour at approximately 90° so all air may be drawn off through the vacuum hoses before heat is applied. Then the hull is baked for one hour at 130° temperature. This unique Pli-cor process completely cures the resin. The curing of conventional fiberglass construction usually takes three to four months, resulting in a resin odor. This is entirely eliminated in the Pli-cor process. After the hull is cured, the nylon bag is stripped away and the hull interior is sandblasted to achieve a surface that can be bonded to. This insures a perfect bond when stringers and bulkheads are welded to the hull.



The completed hull



Cross section of "Pli-cor"

the Pli-cor Story

STEP SIX

The Pli-cor hull now is removed from the mold and is ready for the many specialized and handcrafted processes necessary to assemble and equip the finished boat.

SUMMARY

The glass "I-beams" between the mandrels produce the amazing strength and shock absorbing qualities of Pli-cor. This I-beam construction distributes the force of impact over wide areas along both the outer and inner layers of fiberglass, giving Pli-cor an impact strength many times greater than the ordinary fiberglass hulls with the same amount of glass.

In every way, Tollycraft Pli-cor is superior to ordinary fiberglass construction and meets Tollycraft's exacting standards of excellence. The higher percentage of glass in a Pli-cor hull makes it 33% stronger than ordinary fiberglass hulls. The Pli-cor process takes out more resin, maximizing glass-to-resin ratios. In addition, the use of iso-thalic heat curing resin adds to the strength factor. Pli-cor is truly the most significant advance in all fiberglass boats ever achieved.